

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) An isolated and purified nucleic acid molecule that encodes a ~~mammalian~~murine histamine H4 receptor protein, or a complement of said nucleic acid molecule, comprising a member selected from the group consisting of:

(a) a polynucleotide sequence encoding a polypeptide comprising amino acids 1 to 391 of SEQ ID NO:8; and

(b) a polynucleotide sequence which is a full-length complement of ~~complementary to the~~ polynucleotide of (a) sequence encoding amino acids 1 to 391 of SEQ ID NO:8;

2. (Original) The nucleic acid molecule of claim 1 wherein the polynucleotide is RNA.

3. (Original) The nucleic acid molecule of claim 1 wherein the polynucleotide is DNA.

4. (Previously Presented) The isolated and purified nucleic acid molecule of claim 1 having the nucleotide sequence of SEQ ID NO:5.

5. (Canceled)

6. (Currently Amended) An expression vector for expression of a mammalian histamine H4 receptor protein in a recombinant host, wherein said vector contains a nucleic acid sequence encoding a ~~mammalian~~murine histamine H4 receptor protein having an amino acid sequence of SEQ ID NO:8.

7. (Previously Presented) The expression vector of claim 6, wherein the expression vector contains a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:5, and encodes a mammalian histamine H4 receptor protein.

8. (Canceled)
9. (Currently Amended) ~~A recombinant host~~ An isolated cell containing a recombinantly cloned nucleic acid molecule encoding a ~~mammalian~~ murine-histamine H4 receptor protein having the amino acid sequence of SEQ ID NO:8.
10. (Currently Amended) The ~~recombinant host~~ isolated cell of claim 9, wherein said nucleic acid molecule has the nucleotide sequence SEQ ID NO:5.
11. (Canceled)
12. (Currently Amended) ~~A substantially pure~~ An isolated histamine H4 receptor encoded by the nucleic acid molecule of claim 1.
13. (Previously Presented) The histamine H4 receptor according to claim 12, having the amino acid sequence SEQ ID NO:8.
- 14-15. (Canceled)
16. (Currently Amended) A process for expression of mammalian histamine H4 receptor protein in a recombinant host cell, comprising:
- (a) transferring the expression vector of claim 6 into ~~suited~~ isolated cells;
  - and
  - (b) culturing the ~~host~~ cells of step (a) under conditions which allow expression of the ~~mammalian~~ histamine H4 receptor protein from the expression vector.
- 17-25. (Canceled)